

Remarks

Claims 1-13 are pending in this application. Claims 1-13 now stand rejected. Claim 14 has been added.

Claim Rejections – 35 U.S.C. §112

Claims 1-13 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Claims 1-13 are also rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claim 1 has been amended to recite that the depressions are configured to allow coarse straw ash particles to completely combust and not enter a combustion gas flow. This is supported in the specification at page 2, lines 25-30 and page 4, lines 27-32 where it is described that the coarse particles completely combust and that only fine particles continue in the gas flow. The amended claim language is enabled by the cited language of the specification and Fig. 1. The amended claim language is also not indefinite as it clearly states that the coarse particles completely combust and do not enter the gas flow.

Claim Rejections – 35 U.S.C. § 103

Claims 1-2, 4, 6, 8, 10, and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US 4,498,909 to Milner et al. in view of US 5,901,653 to Jennebach et al. and further in view of US 5,720,165 to Rizzie et al.

Claim 1 has been amended to recite that the boiler is for burning straw and that the coarse straw ash particles completely combust and do not enter a combustion gas flow. Milner does not teach depressions that allow for ash particles to completely combust, as the ash continuously spills from the agitated grate onto the rotating grate table 52 and into chutes

41 with the assistance of the ash plows 39. (Milner, Col. 5, lines 1-14).

Furthermore, the combination of a combustion chamber, secondary combustion chamber, and ash separator would not be obvious based on Milner, Jenneback, and Rizzie because they deal with wood chips and plastics/waste, not straw. (Milner, Col. 1, lines 59-60; Jenneback, Col. 1, lines 24-26; Rizzie, Col. 2, lines 27-30). Combustion of straw uniquely results in loose course particles that can get caught up in the gas flow, but for heavier wood chips and plastics/waste this is not a problem. Therefore there would be no reason to contemplate combining a combustion chamber, a secondary combustion chamber, and an ash separator in series based on the cited references. The only motivation to combine these elements is based on the present application, but such hindsight is impermissible (MPEP § 2142).

Accordingly, Applicant respectfully submits that claim 1 is patentable over Milner, Jenneback, and Rizzie under 35 U.S.C. 103(a) and requests the withdrawal of the rejection to claim 1. Claims 2, 4, 6, 8, 10, and 12 are dependent from claim 1 and are therefore patentable for at least the same reasons as above.

Claims 3, 5, 7, 9, 11, and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over ‘909 in view of ‘653 and ‘165 as applied to claims 1, 3 and 5 above, and further in view of US 6,758,149 to Oiwa et al.

Claim 5 has been amended to recite that the circular baffle plate is fitted such that a narrow annular opening remains between the baffle plate and the outer wall of the ash separator. This language has also been added to the specification in the paragraph starting on page 4, line 19. The original and replacement Fig. 2 clearly show that the opening between the baffle plate and the wall of the ash separator is narrow; therefore there is no new matter. Examiner noted in the Response to Arguments that the claim language did not include the limitation that the opening was narrow or “ring-like,” so the limitation has been added. The annular opening of Rizzie as shown by the Examiner is in no way narrow, but constitutes a

majority of the diameter of the separator 16. It would also not be obvious to widen the casing 112 to create the narrow opening of claim 5 because doing so would block the inlet into the separator 16.

Accordingly, Applicant respectfully submits that claim 5 is patentable over Milner, Jenneback, and Rizzie under 35 U.S.C. 103(a) and requests the withdrawal of the rejection to claim 5. Claims 3, 5, 7, 9, 11, and 13 are dependent from claim 1 and are therefore patentable for at least the same reasons as above.

New independent claim 14 includes the limitations of claims 1, 3, and 5 and is therefore patentable for at least the same reasons as above.

